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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,805	10/26/2005	Raynald Labrecque	0055676-000013	4174

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BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
TAI, XIUYU	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
09/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/533,805	LABRECQUE ET AL.	
	Examiner	Art Unit	
	Xiuyu Tai	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2005*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *96-190* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *96-190* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 96-132, and 168 are drawn to an electrical reactor for reforming a gas

Group II, claim(s) 133-167, and 169-170 are drawn to an electrical process for gas reforming

Group III, claim(s) 171-190 are drawn to a chemically active conductive lining for gas reforming

2. The inventions listed as Groups I, II, and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Where the group of inventions is claimed in one and the same international application, the requirement for unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "**special technical features**" shall mean those technical features that define a contribution which each of the claimed inventions considered as a whole , **makes over the prior art**. The inventions listed as Groups I and II do not relate to a single general

inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, although they share the special technical feature, this special technical feature does not define a contribution over the prior art for the following reasons: "reforming a gas comprising at least one possibly substituted hydrocarbon, and /or at least one possibly substituted organic compound in the presence of an oxidizing gas " is the special technical feature linking Group I, Group II and Group III. "reforming a gas comprising at least one possibly substituted hydrocarbon, and /or at least one possibly substituted organic compound in the presence of an oxidizing gas " is known in the art, such as "CO2 reforming of methane by the combination of dielectric-barrier discharges and catalysis" by Kraus et al, *Phys. Chem. Chem. Phys.*, 2001, 3, 294-300. Accordingly, the special technical feature does not provide a contribution over the prior art. Therefore the restriction is appropriate.

3. If applicant elects **Group I**, applicant must further elect one of each of the following patentably distinct species,

Species A1: an electrical reactor comprising..., the reactor including: ... one electrical source as cited in page 30;

Species A2: an electrical reactor comprising..., the reactor including: ... one electrical source, said lining defining an iron or iron alloy based catalyst as cited in the third paragraph of page 32

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (i.e. species A1 **or A2**) for prosecution on the merits to which the claims shall be restricted.

Furthermore, if applicant elects **Species A1 of Group I**, applicant must further elect one of each of the following patentably distinct species (i.e. species C1, C2, **or** C3) ,

Species C1: at least one of the electrodes is of hollow type as cited in the last paragraph of page 32

Species C2: at least two metal electrodes each consisting of a tubular member and a hollow perorated disk as cited in the first paragraph of page 28.

Species C3:one or more of the electrodes is such that its face exposed to the lining is provided with protuberances and/or projections, which are preferably conical and still more preferably needle shaped as cited in the third paragraph of page 33.

If applicant elects Species A1 of Group I, applicant must further elect one of each of the following patentably distinct species (i.e. species D1 **or** D2),:

Species D1: the material of the conductive lining is selected from the group consisting of elements of group VIII of the periodic table as cited in the second paragraph of page 28

Species D2: the lining consists of balls and /or threads based on at least one element of group VIII as cited in the second paragraph of pate 29

Currently, claim appears to be generic claim 96.

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (i.e. species C1, C2, **or** C3 **and** D1 **or** D2) for prosecution on the merits to which the claims shall be restricted

4. If applicant elects **Group II**, applicant must further elect one of each of the following patentably distinct species (i.e. species E1, E2, E3, E4, E5, **or** E6),

Species E1: the gas to be reformed consists of at least one compounds of the group consisting of c1 to c12 hydrocarbons s cited on the second paragraph of page 35;

Species E2: the gas to be reformed is a natural gas as cited in the third paragraph of page 35.

Species E3:the gas to be reformed is a biogas as cited on the third paragraph of page 36

Species E4:the gas to be reformed is a natural gas consisting of 70 to 90 % of methane as cited on the forth paragraph of page 36

Species E5: the gas to be reformed consists of at least one of the compounds of the group consisting of organic compounds of molecular structure whose constituents are carbon and hydrogen as cited in the first paragraph of page 37

Species E6: the gas to be reformed may also contain one of more gases selected from the group consisting of hydrogen nitrogen oxygen water vapor as cited in the third paragraph of page 37

If applicant elects **Group II**, applicant must further elect one of each of the following patentably distinct species (i.e. species F1, F2, **or** F3),

Species F1: the mixture of gases contains less than 5% volume of oxygen as cited in the fourth paragraph of page 37

Species F2the mixture of gas consists of 25-60% methane as cited in the last paragraph of page 37

Species F3:the carbon/oxygen atomic ratio in the gas mixture is comprised between 0.2 to 1.0 as cited in the third paragraph of page 38

Currently, claim appears to be generic claim 133.

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (i.e. species E1, E2, E3, E4, E5, **or** E6 **and** F1, F2, **or** F3) for prosecution on the merits to which the claims shall be restricted.

5. If applicant elects **Group III**, applicant must further elect one of each of the following patentably distinct species,

Species G1: the unitary elements are in a form selected from the group consisting of straws, fibers as cited in the last paragraph of page 28

Species G2: the unitary elements at least partly consist of perforated plates and the surface percentage of the perforations ins the plate is comprised between 5-50% as cited in the first paragraph of page 29.

Species G3:the unitary elements are based iron the second paragraph of page 28

Currently, claim appears to be generic claim 171.

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (i.e. species G1, G2, **or** G3) for prosecution on the merits to which the claims shall be restricted.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

6. Due to the complexity of the restriction requirement, a telephone was not made to request oral election to above restriction requirement.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the

requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuyu Tai whose telephone number is 571-270-1855. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/X. T./
Examiner, Art Unit 1795

8/22/2008

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795